



## *Confirmation of Product Type Approval 26/APR/2010*

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This is to certify that, pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 28/FEB/2013. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 19/APR/2015 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

### MARINER SYSTEMS UK LTD

Model Name(s): Mariner Kits MS2210, MS2220 certified for use with HP Compaq 8000 Elite Convertible Minitower (CMT) PC; Mariner Kits MS2230, MS2240 certified for use with HP Compaq 8000 Elite Small Form Factor (SFF) PC;

**Presented to:**

MARINER SYSTEMS UK LTD  
OAKLANDS PARK  
WOKINGHAM  
United Kingdom

**Intended Service:**

Navigation, loading instrument & general purpose applications.

**Description:**

The mounting devices MS2210, MS2220, MS2230 and MS2240 are for use with above personal computers for operation in the marine environment. The personal computers are manufactured by HP. Responsibility for manufacture of the products to be used with these mounting devices is HP.

**Ratings:**

Wide range input voltage

**Service Restrictions:**

Unit certification is not required for the mounting device. The PC will require Unit Certification if intended for use in any machinery monitoring or directional functions onboard an ABS classed vessel, MODU or facility

**Comments:**

NA

**Notes / Documentation:**

Approval Documentation: Test Reports No.s TL1403, TL1404 & TL1405, Assembly Drawings MS2210, MS2220, MS2230 and MS2240. The approved models/model numbers are listed within Mariner Systems (UK) Ltd Website: [www.marinersystems.com](http://www.marinersystems.com)

**Term of Validity:**

This product/model is covered under Product Design Assessment (PDA) Certificate # 10-LD566121-PDA, dated 20/Apr/2010. This PDA Certificate expires 19/Apr/2015. It will remain valid for 5 years from date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first). It is

valid for all vessels contracted on or before the date of the Rules used in this evaluation.

**ABS Rules:** 2010 Steel Vessel Rules 1-1-4/7.7, 4-9-7/13.1 and 4-9-7/ Table 9 & Table 10.

**National Standards:** NA

**International Standards:** IEC 60945 ed. 4.0 2002-08 (relevant sections) and IACS E10 rev. 5 2006.

**Government Authority:** NA

**EUMED:** NA

**Others:** NA

<b>Model Certificate</b>	<b>Model Certificate No</b>	<b>Issue Date</b>	<b>Expiry Date</b>
PDA	10-LD566121-PDA	20/APR/2010	19/APR/2015



#### ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.